



ICAMS Special Seminar

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Interdiffusion in binary liquid mixtures: From glass transition to critical dynamics

In a binary liquid mixture, different kinds of phase transitions can occur that are associated with various mass transport phenomena in the liquid. When the liquid undergoes a liquid-liquid demixing transition, a slowing down of transport properties near the critical point is observed. Another possibility is the solidification of the liquid into a metastable glass state where one finds a structure that is very similar to that of the liquid.

Towards the glass transition, transport properties exhibit a drastic change by many orders of magnitude in a relatively small temperature range. In my talk, computer simulation of simple Lennard-Jones model are presented to investigate the interdiffusion dynamics both with respect to the critical dynamics in systems with liquid-liquid demixing and with respect to glassforming mixtures.